

LD99-F001 / Class II Change
CFL with Ballast MK25-U4 @ 70 kHz $\pm$ 5 kHz
FCC ID: ACJ4PKEFG25LE
Models EFG25E28 and EFG25E50

1/5

Attached-2

ELECTROMAGNETIC EMISSIONS

TEST REPORT

FCC CLASS B COMPLIANCE

KIND OF EQUIPMENT : SELF BALLASTED FLUORESCENT LAMP

MODEL : EFG25E28, EFG25E50

FCC ID : ACJ4PKEFG25LE

Matsushita Electronics Corporation

1-1 Saiwai-cho, Takatsuki-city, Osaka, Japan

TEL 0726-82-7285

FAX 0726-81-3780

DATE OF TEST : SEPTEMBER. 2, 1999

Matsushita Electronics Corporation

ENGINEERING TEST REPORT

(RF Lighting Device)

Date : September 9, 1999

Issued: Osaka, Japan

This is to certify that the Self Ballasted Fluorescent Lamp from which the following data have been derived through the required measurements, properly complies with the requirements of FCC Rules and Regulations Part 18 Subpart C as of date of measurements were made

1. Manufacturer of Device : Matsushita Electronics Corporation
1-1 Saiwai-cho, Takatsuki-city, Osaka, Japan
2. Description of Device : Self Ballasted Fluorescent Lamp " Panasonic" .
FCC ID : ACJ4PKFEG25LE
 - a. Application Type : Certification
 - b. Model Number : EFG25E28, EFG25E50
 - c. Serial Number : -
 - d. Date of Manufacture : August. 25, 1999
 - e. Magnetron Frequency : OPERATING FREQUENCY : 68kHz
 - f. Output Power : POWER CONSUMPTION : 25W
3. Measurement Procedures Used : FCC Method of Measurements of Radio Noise
Emissions from ISM Devices, MP-5.
4. Measurement Site : EMC Measurement Site of Measurement Systems
Laboratory, Corporate Quality Assurance
Division, Matsushita Electric Industrial
Co., Ltd
This site has been filed with FCC and description of this measurement facilities as so
5. Date of Measurement : September. 2, 1999

DESCRIPTION OF TEST SITE

NAME OF TEST SITE:

EMC MEASUREMENT SITE OF
MEASUREMENT SYSTEMS LABORATORY, CORPORATE QUALITY
ASSURANCE DIVISION, MATSUSHITA ELECTRIC INDUSTRIAL
CO., LTD

ADDRESS:

1-6 MATSUO-CHO KADOMA-CITY OSAKA 571 JAPAN

This site has been filed with FCC and the description of
this measurement facilities as so.

1. Radiation Limit (§18.305 (C))

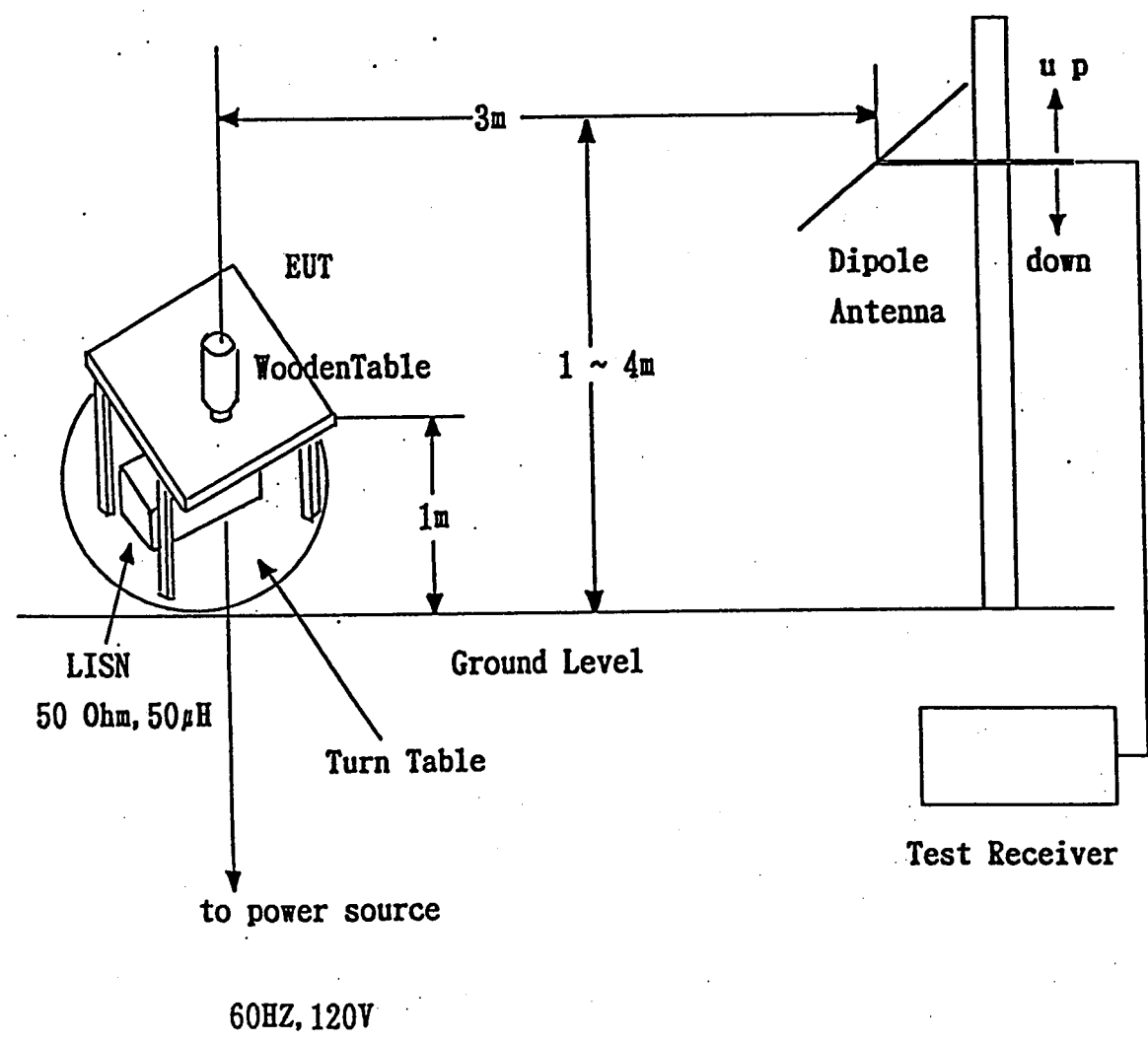
a. Measurement Methods and Test Procedure

Methods of Measurements of Radio Noise Emissions from ISM Equipment FCC/OST MP-5(1985)

b. Test Arrangement

Above 30MHz, I used half wave dipole antenna

Test Equipment Operation Mode: Quasi-Peak



Sheet 3 of 7 sheets

DESCRIPTION OF DEVICE

FCC ID :

Type of EUT : EFG25E28, EFG25E50

Classification of EUT : Class B

RADIATED RADIO NOISE MEASUREMENT

TEST CONDITION OF INSTRUMENT

(1) Resolution Bandwidth : 120kHz

(2) Detector Function: QP

EUT Warm-up Time : 30 minutes

DATE : Sep. 2, 1999

Temp : 24 °C Humi : 42 %

Frequency (MHz)	Antenna Factor (dB)		Meter Reading at 3m (dB/μV)		3m Limits (μV/m)	Emissi Level at 3m (μV/m)	
	Horizontal	Vertical	Horizontal	Vertical		Horizontal	Vertical
39.37	—	11.3	—	14.9	100	—	20.4

FCC LIMITS CLASS B (§ 18.307(C) FREQUENCY (MHz)

30 ~ 88

88 ~ 216

216 ~ 1000

LIMIT (μV)

100

150

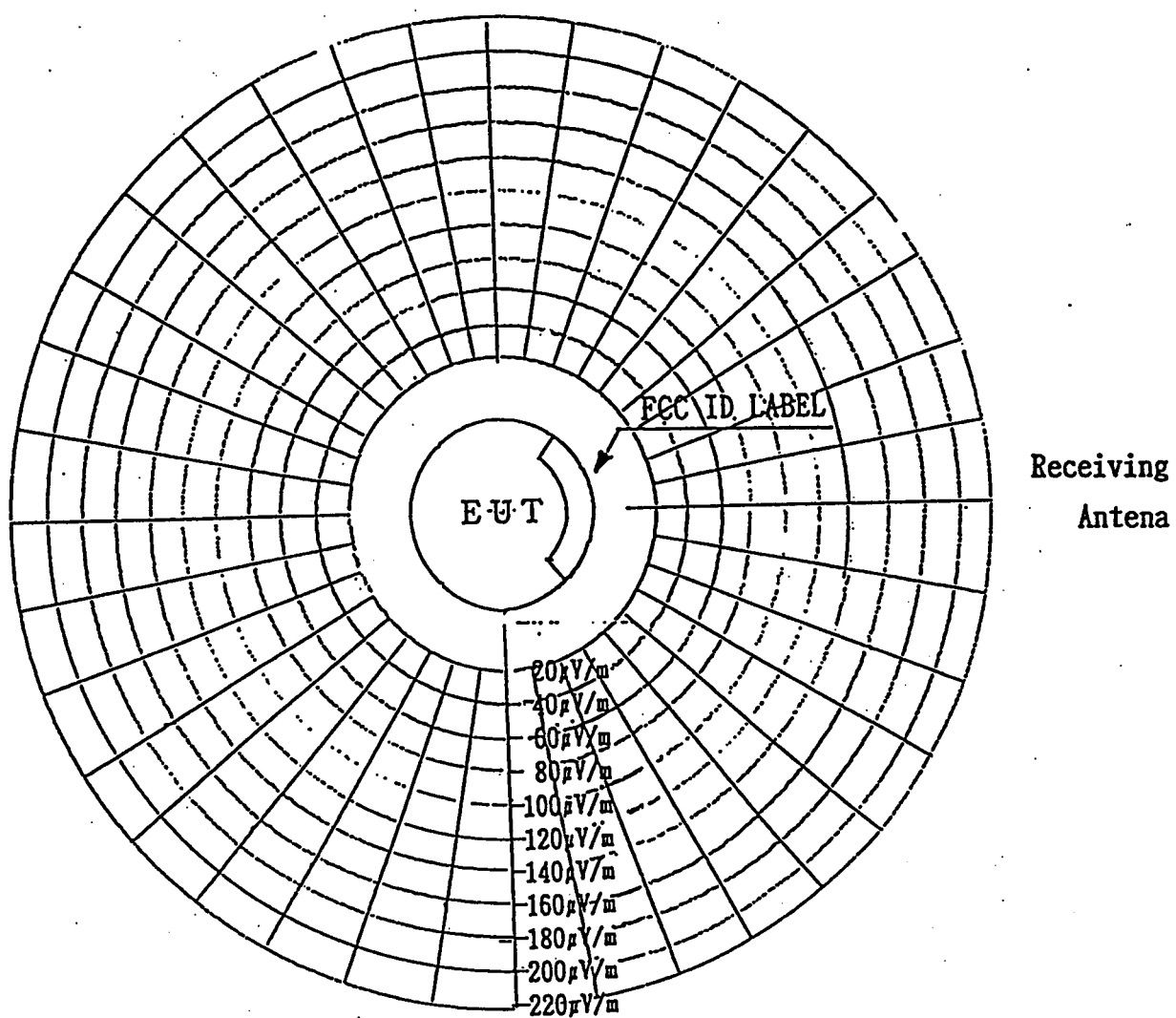
200

NOTE : I checked spectrum from 450 kHz to 30 MHz and listed most great 1 points spectrum only.

RADIATION PATTERN

f=

Distance=3m



NOTE : Radiation Pattern can not draw

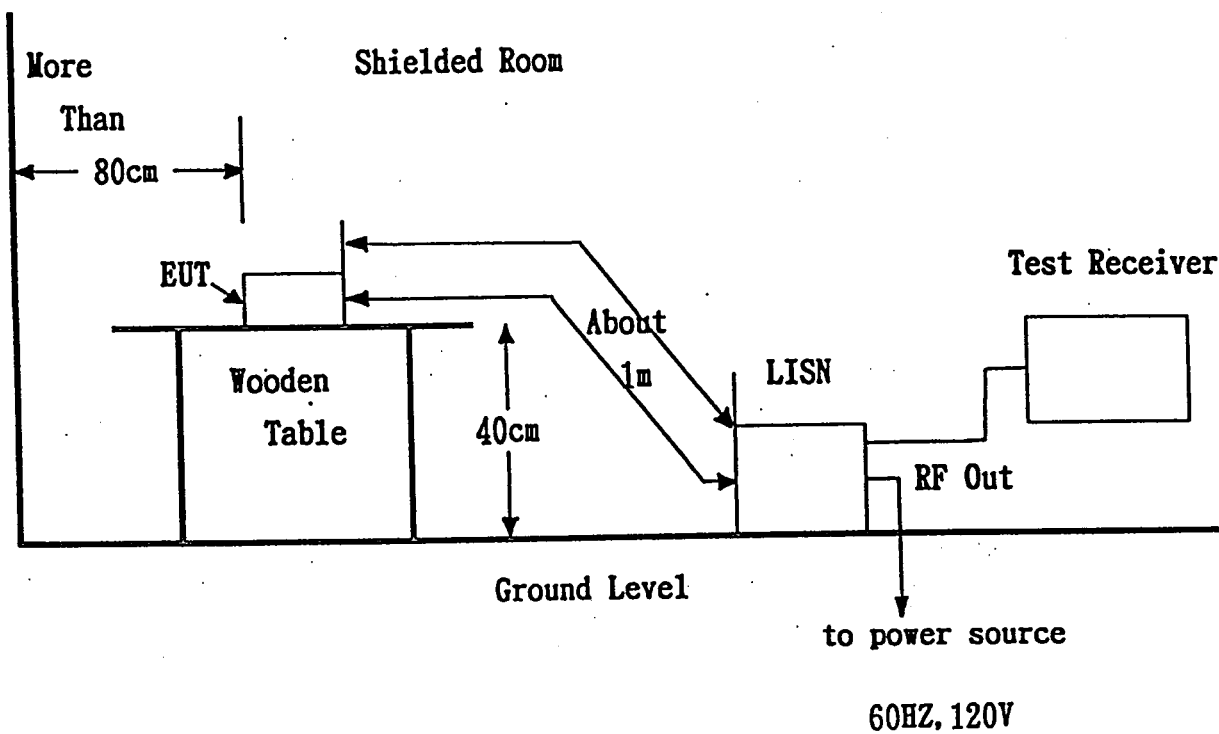
1. Conduction Limit (§18.307)

a. Measurement Methods and Test Procedure

Methods of Measurements of Radio Noise Emissions from ISM
Equipment FCC/OST MP-5(1985)

b. Test Arrangement

Test Equipment Operation Mode: Quasi-Peak



8/15

Sheet 6 of 7 sheets

DESCRIPTION OF DEVICE

FCC ID :

Type of EUT : EFG25E28, EFG25E50

Classification of EUT: Class B

LINE CONDUCTED RF VOLTAGE MEASUREMENT

TEST CONDITION OF INSTRUMENT

(1) Resolution Bandwidth : 9 kHz

(2) Detector Function : Q P

EUT Warm-up Time : 30 minutes

DATE : Sep. 2, 1999

Temp : 24 °C Humi : 42 %

Frequency (MHz)	LISN Factor (dB)	Meter Reading (dB/μV)		Limits (μV)	Emission Level (μV)	
		Other end- Ground	Other end- Ground		Other end- Ground	Other end- Ground
0.450	0.2	41.8	42.7	250	123	136.5
0.522	0.1	38.5	36.2	250	84.1	64.6
0.605	0.1	39.8	41	250	97.7	112.2
0.766	0.1	41.6	41.1	250	120.2	113.5
0.814	0.1	40.1	36.3	250	101.2	65.3
0.913	0.1	37.1	37.8	250	71.6	77.6
0.919	0.1	36.2	37.7	250	64.6	76.7
1.108	0.1	35.8	34	250	61.7	50.1
1.114	0.1	35.6	29.8	250	60.3	30.9
1.259	0.1	29.3	34.4	250	29.2	52.5
1.379	0.1	32	—	250	39.8	—
1.415	0.1	34.2	—	250	51.3	—
1.710	0.1	29.7	—	250	30.5	—
1.554	0.1	—	32.8	250	—	43.7
1.710	0.1	29.7	—	250	30.5	—
1.777	0.1	27.4	—	250	23.4	—
3.398	0.2	28.8	—	250	27.5	—
3.703	0.2	30.2	—	250	32.4	—
4.149	0.2	—	28.8	250	—	27.5

FCC LIMITS CLASS B (§ 18.307(C)) FREQUENCY (MHz)
0.45 ~ 30

LIMIT (μV)
250

NOTE : I checked spectrum from 450 kHz to 30 MHz and not listed were more than 20 dB below permitted limits.

LIST OF TEST EQUIPMENT

Device	Manufacture	Model	Frequenct range
Half wave Dipole Antenna	Advantest	TR-1722	25 ~ 1000 MHz
Biconical Antenna	Schwarzbeck	BBA 9106	30 ~ 300 MHz
Log periodic Antenna	Schwarzbeck	UHALP 9107	300 ~ 1000 MHz
Test Receiver	CHASE	LHR7000	10kHz ~ 30 MHz
Test Receiver	CHASE	UHR4000	25 ~ 1000 MHz
Quasi-Peak Adapter	Hewlet Packard	85650A	10kHz ~ 1000 MHz
Spectrum Analyzer	Hewlet Packard	8567A	10kHz ~ 1500 MHz
RF Preselector	Hewlet Packard	85685A	20 Hz ~ 2000 MHz
LISN	Kyoritsu Denshi	KNW 407	0.45 ~ 30 MHz

雄音端子電圧測定

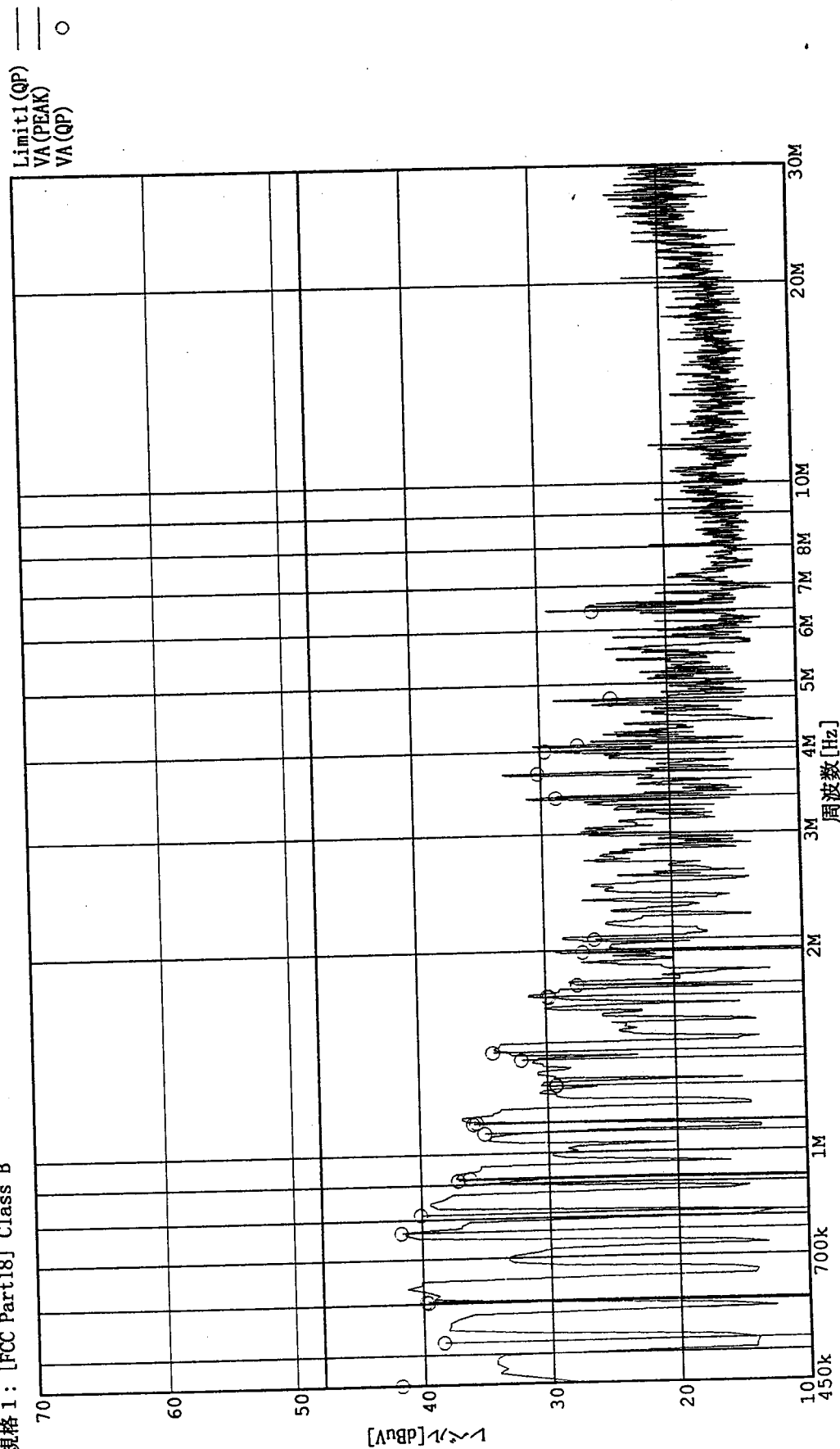
北米71177 25W
EFG25E28
1
伊藤
26ポイント
ピーク/QP

温度
湿度
測定日時
計測器
コメント

:24℃
:52%
:1999/9/2 11:48
:R3361A, ESCS30
:

機器名称
製品番号
シリアル番号
測定ポイント
検波モード

規格 1 : [FCC Part18] Class B

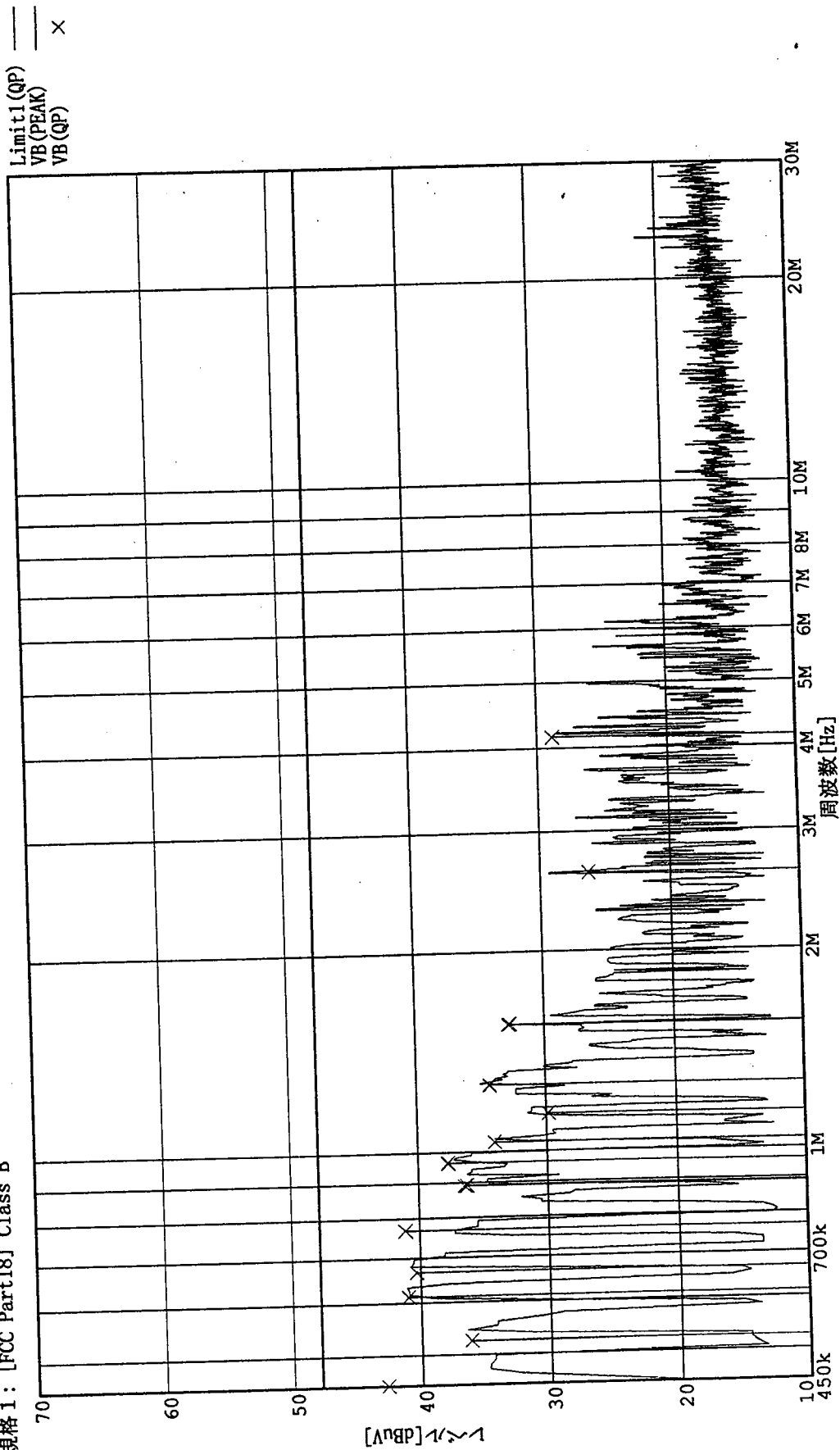


雑音端子電圧測定

雑音端子電圧測定
 機器名称 : 北米ライトカブ 25W
 製品番号 : EFG25E28
 シリアル番号 : 1
 測定者名 : 伊藤
 測定ポイント : 17ポイント
 検波モード : ピーク/QP

温度 : 24℃
 湿度 : 52%
 測定日時 : 1999/9/2 11:35
 計測器 : R3361A, ESCS30
 コメント :

規格 1 : [FCC Part18] Class B

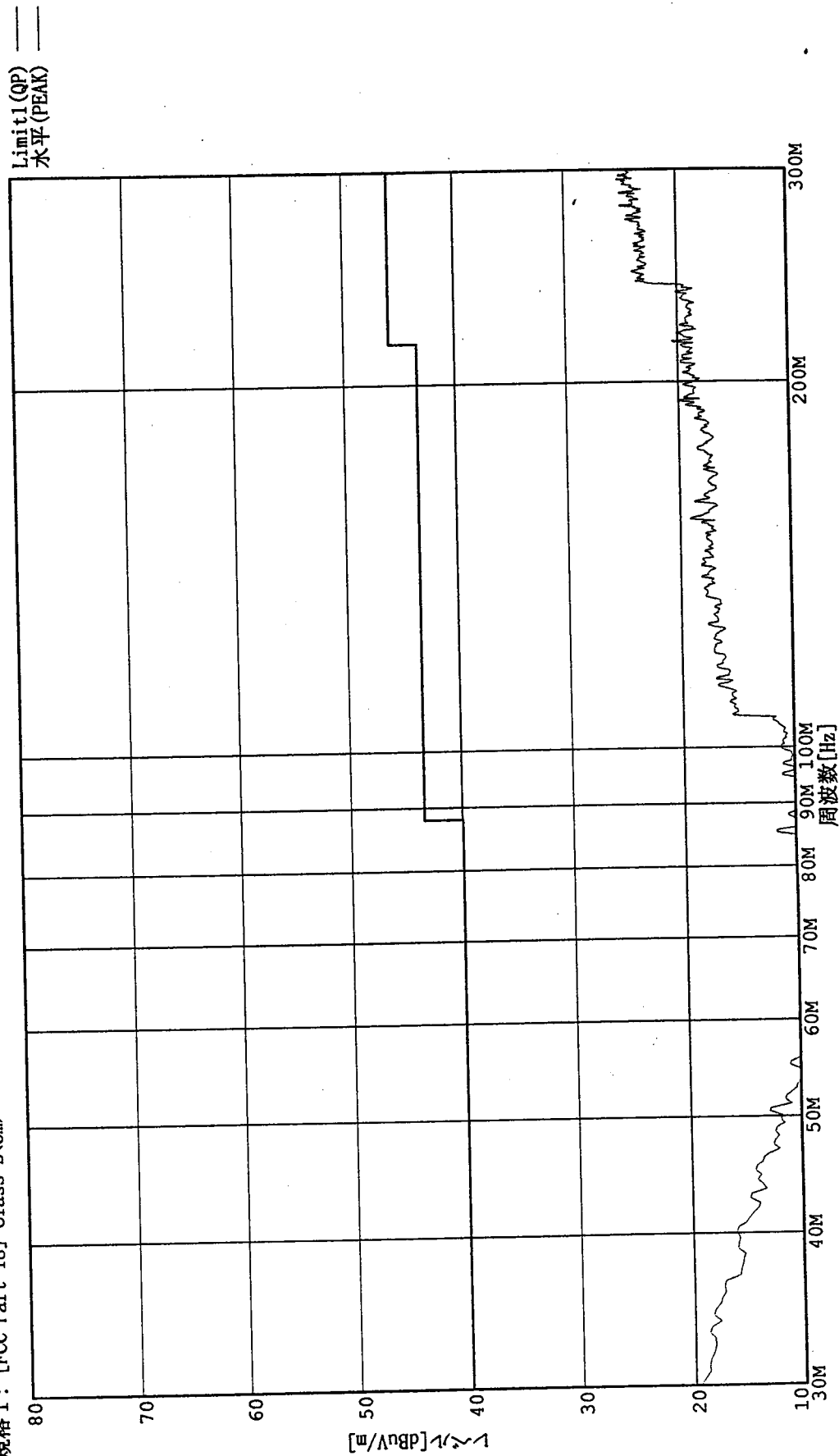


放射妨害電界強度測定

機器名称 : 北米ライトプロセル 25W
 製品番号 : EFG25E28
 シリアル番号 : 1
 測定者名 : 伊藤
 測定バンド : レバンド
 検波モード : ピーク

温度 : 24°C
 湿度 : 52%
 測定日時 : 1999/9/2 15:50
 計測器 : R3361A
 コメント :

規格 1 : [FCC Part 18] Class B<3m>



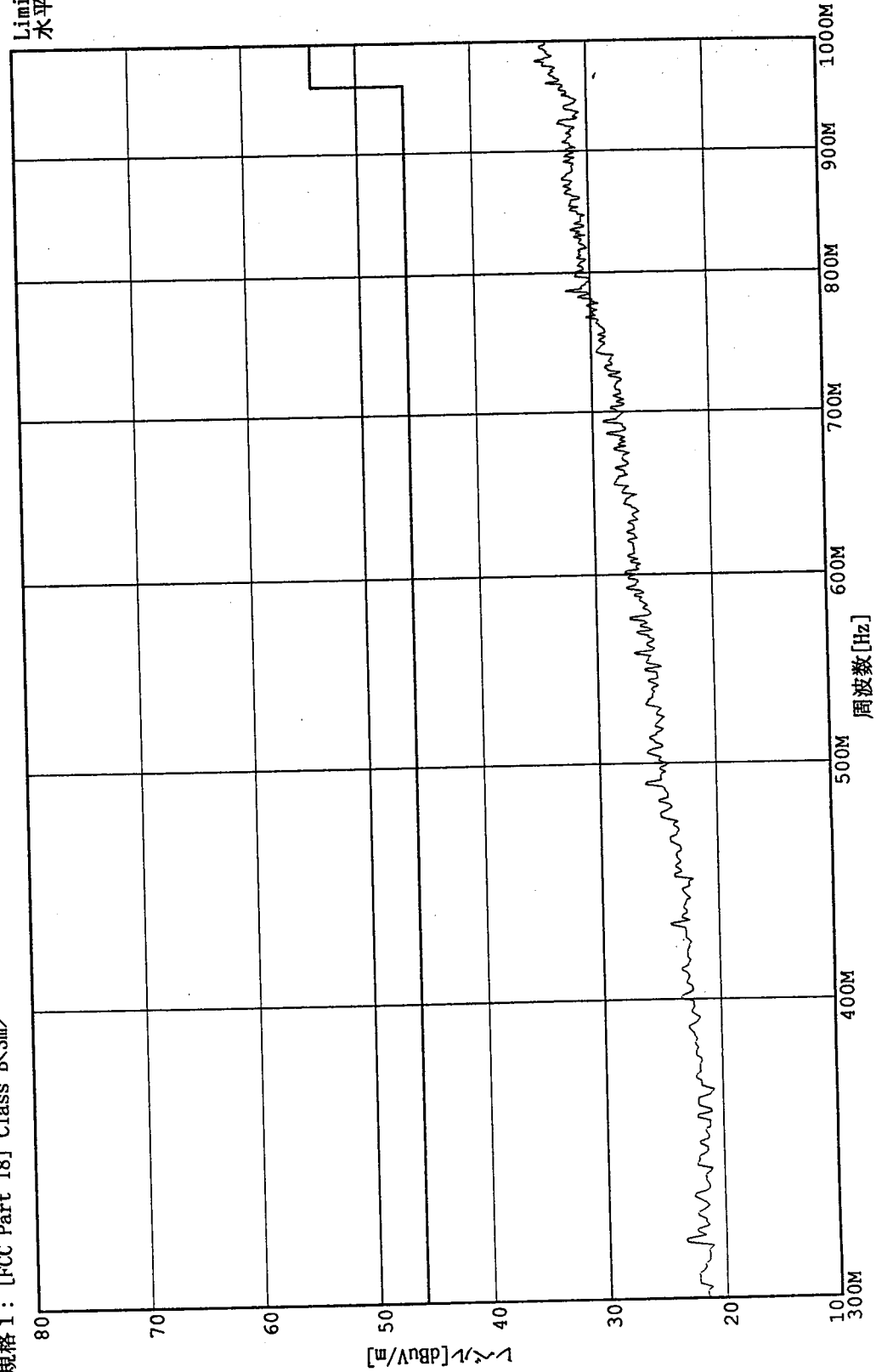
放射妨害電界強度測定

機器名称 : 北米ライトアップ セル 25W
 製品番号 : EFG25E28
 シリアル番号 : 1
 測定者名 : 伊藤
 測定バンド : 1バンド
 検波モード : ピーク

温度 : 24℃
 湿度 : 52%
 測定日時 : 1999/9/2 15:41
 計測器 : R3361A
 コメント :

規格 1 : [FCC Part 18] Class B<3m>

Limit1 (QP)
 水平 (PEAK)

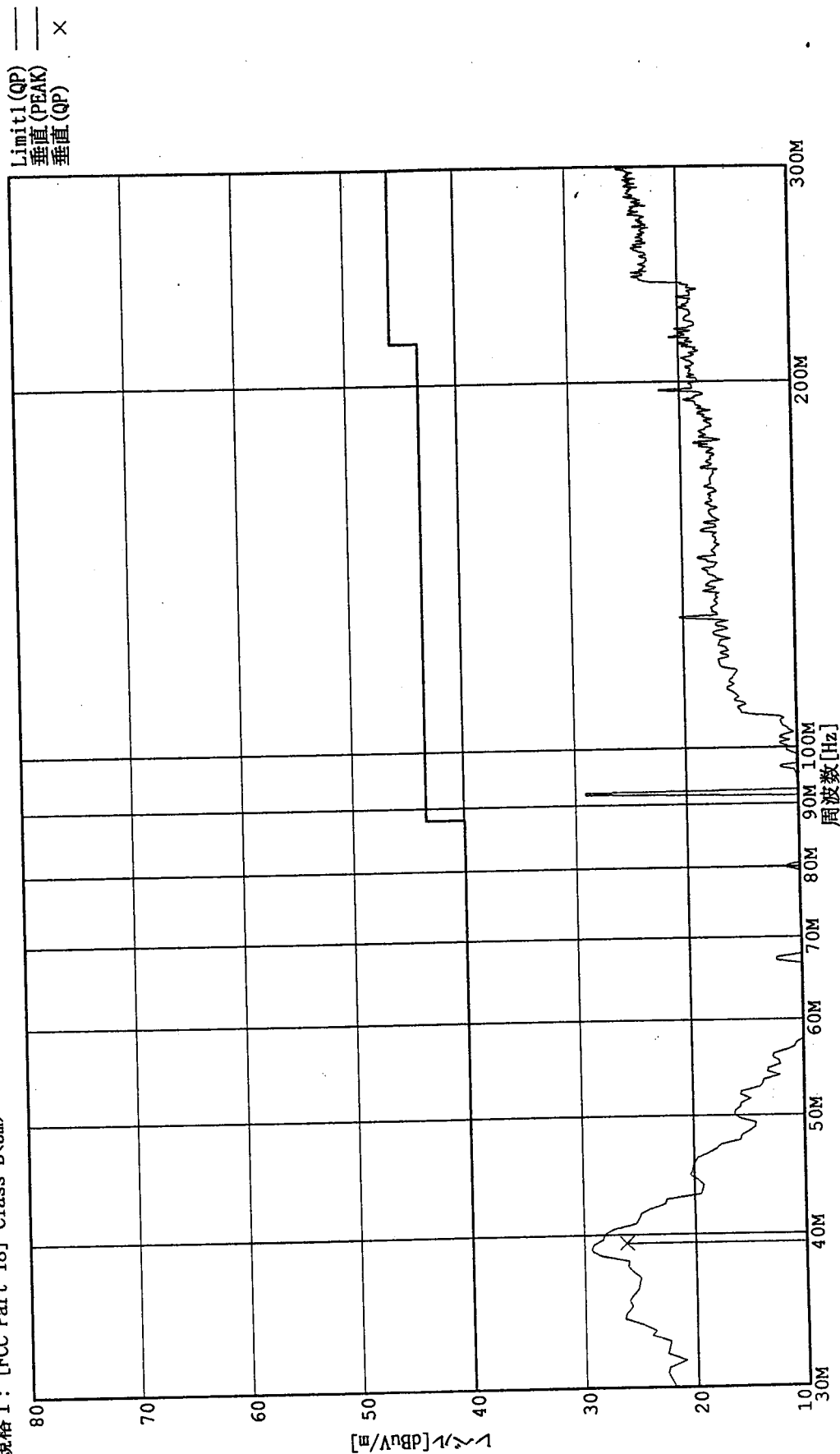


放射妨害電界強度測定
 機器名称 : 北米ライト7 25W
 製品番号 : EFC25E28
 シリアル番号 : 1
 測定者名 : 伊藤
 測定ポイント : 2ポイント
 検波モード : ピーク/QP

温度
 湿度
 測定日時
 計測器
 コメント

: 24°C
 : 52%
 : 1999/9/2 16:06
 : R3361A, ESCS30
 :

規格 1 : [FCC Part 18] Class B<3m>



放射妨害電界強度測定

機器名称 : 北米ライトアブセル 25W
 製品番号 : EFG25E28
 シリアル番号 : 1
 測定者名 : 伊藤
 測定バンド : 1バンド
 検波モード : ピーク

温度 : 24°C
 湿度 : 52%
 測定日時 : 1999/9/2 15:34
 計測器 : R3361A
 コメント :

規格 1 : [FCC Part 18] Class B<3m>

